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ABSTRACT

Monitoring the impact of education policy is a critical component of planning. Without an effective monitoring system, the achievements of policies cannot be evaluated nor can the cost-effectiveness of various strategies be estimated. Monitoring requires the establishment of good data bases that are served by good (computerized) data collection systems. From these data bases, quantifiable indicators can be defined to measure all of the various ways in which policies can have an impact on an education system. To produce these essential monitoring systems requires coordination among all parties interested in education provision and the modernization and revitalizing of planning and management approaches. To upgrade the human aspect, through assistance and reward in one's own responsibilities, is critical in planning and monitoring. Hence, developing methods and procedures to help people planning and managing these systems is noted as a priority task. A 9-item bibliography is included. (Author/DB)

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MONITORING THE IMPACT OF EDUCATION POLICIES

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PAPER TO BE PRESENTED AT THE

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RESUME

Monitoring the impact of education policy is a critical component of planning. Without an effective monitoring system, the achievements of policies cannot be evaluated nor can the cost-effectiveness of various strategies be estimated. Monitoring requires good data bases to be established which are served by good (computerised) data collection systems. From these data bases, quantifiable indicators can be defined to measure all of the various ways in which policies can have an impact on an education system. To produce these essential monitoring systems requires coordination amongst all parties interested in education provision and the modernisation and revitalising of planning and management approaches. To upgrade the human aspect, through assistance and reward in one's own responsibilities, is critical in planning and monitoring. Hence developing methods and procedures to help people planning and managing our systems is noted as a priority task.

One of the themes of this most important Conference requires discussion of ways to revitalise education planning and management. It also requires an examination of new approaches which might be followed especially with a view towards international cooperation.

Since 1968 and the very important Conferences held in that year, a large number of significant developments have occurred in education planning and management. Certainly education systems in the developing world have grown significantly in their size and in the number of young people from underprivileged groups they now include. The systems of today are however significantly more expensive and have more people to plan and manage them than those systems in 1968. They are also more diverse and complex both in structure and qualitatively. Unfortunately, according to Unesco's own statistics, there are now more people who are illiterate and more young children out of school (globally) than there were in 1968.

One question which we could address is the extent to which expansion has really been the result of coherent planning as opposed to coincidental administrative decisions to recruit an unknown number of teachers or to build an unplanned number of schools. Such a question becomes important as we enter the 1990's. Almost all countries are finding they are approaching the limits of their budgets. Future expansion cannot be expected at the rate it has taken place in the past. Certainly many countries have tried to develop education plans but, as a number of studies have shown, these plans have generally not achieved their objectives.

The international Conferences of 20+ years ago - led by greats like Anderson, Beeby, Bereday, Blaug, Bowman, Coombs, Weiler and others - have had a lasting impact on the provision of education systems. They were successful in having their message accepted that planning was sine qua non of education provision. That basic tenet had not been universally accepted before. They had it accepted and it is still accepted today - even though the methodologies may not all be perfected yet.

Monitoring policy implementation is one critical planning methodology which has as yet not been perfected. Indeed it has not even been addressed by many organisations, systems and individuals. It is an area which is overlooked because, through monitoring ones actions, both personal and organisational failures are just as likely to be revealed as are one's successes. This paper seeks to examine several key issues related to policy monitoring and to propose that such monitoring be accepted universally as a routine planning procedure in all education systems.

1. WHY MONITOR POLICY IMPLEMENTATION?

The answers to the question "why monitor policy?" are fairly basic and straightforward and should be acceptable to all objective observers. They are:

- to assess whether a plan is being implemented in accordance with the objectives established for it.

- to be accountable to the people and the Governments who have provided the financial support necessary for the actions being undertaken.

Without an effective monitoring system, it is not possible to comment on the achievements of objectives and targets or on the cost-effectiveness of strategies. Such comments are important and we apply the concepts imbedded in them in our daily lives. Often however, there is considerable reluctance to apply them to the education systems with which we are all intimately connected. Many politicians and senior administrators indeed feel personally threatened when the possibility of monitoring policy impact is discussed. Researchers often do not help to alleviate those feelings when they blandly attempt to recommend and sometimes even impose solutions without regard to the significant and varied pressures placed upon education leaders.

2. WHAT TO MONITOR?

Identifying what aspects of policy should be monitored is almost as critical as deciding whether to monitor at all. It is these aspects which will reveal what a particular education system has achieved. Because each system and situation will have its own distinct emphases, it is not possible to state globally what should be monitored. It is however possible to raise several issues which must be considered.

Level of Policy

Education policy cannot be viewed as a single entity which then lends itself to monitoring. The term "policy" is itself generic for policy is developed at several different levels.

Development policies and plans must, in part, state goals to be attained at a time beyond the current plan. Normative level policies - those that establish the

overall direction in which the education system should be oriented - are essential and often do not need to be stated in terms of specific targets to be achieved. When they continue to be stated for a long time however, they lose some of their credibility and citizens increase their scepticism about government motives and intentions. It is often better for a government to differentiate between long-term and short-term intentions even if it does force that Government into a position of committing effort to a particular undertaking whose achievement can be monitored in the appropriate way. Too often general statements have also been used to cover-up the need to specify exactly what is to be achieved - and therefore monitored - and within what time span.

Policies stated at the strategic level do however need to be stated in terms which can be measured. These policies state the overall strategies through which the normative level goals are to be attained, especially within the plan period. Policies stated at the operational level - about intended actions relating to project activities within the plan period - also need to be stated in terms which are measurable. The measurement of the achievement of these activities must not be avoided or hidden because of imprecise specification.

This hierarchy of different policy levels can be illustrated by considering a goal stated in a National Development Plan of achieving Universal Primary Education (UPE). This goal as stated would be classified as being at the normative level. It is actually a poor policy statement because it does not indicate how long a person should enrol or attend, what success should be attained, when UPE should be attained in the country, etc. Nevertheless, general programs can be designed to achieve that goal - for example the encouragement of rural people. Policies guiding these programs would be classified as being at the strategic level. Policies related to specific projects within those programs aimed (say) at particular rural areas or at specific groups of people - for example at girls - would be classified as being operational level policies. Underpining all three levels are the administrative level policies - those which indicate how a project or even a system is to be implemented and administered.

Ideally the four levels of policy should form a hierarchy so that policies are set within a coherent framework. Unfortunately policy-makers frequently formulate a policy only at one level and are not concerned with the other levels as is demonstrated very convincingly by Knight (1987) for education systems in Asian and Pacific

countries. At lower levels of policy, there should be multiple policy statements stemming from each higher level policy.

Intention of the policy

Complicating the identification of what aspects of policy implementation should be monitored are the dual problems that:

- some consequences of policy implementation are intended while others are unintended
- some consequences of policy implementation are direct while others are indirect

In determining what is to be monitored therefore, it is important to analyse situations broadly to encompass a range of features which might be subject to overall economic and social development and not just education development. For example, some policies might aim at improving the school retention rate at the Junior Secondary level and the quality of education provision especially in respect of life skills and national culture and values. Unintended consequences could include curriculum revision in post-secondary technical courses and expanded non-formal provision for youth and adults in courses about national concerns as well as a shortage of entrants to apprenticeship courses. Indirect benefits which could flow by implementing such a policy might include reduced juvenile delinquency, decreased drug and alcohol abuse by young people and perhaps reduced suicide rates. An indicator might, for example, be defined to monitor a composite of incidence rates of such problems as a comment on the indirect effects of implementing a policy to increase retention rates.

Education policies must set the directions for the future. Unfortunately, as is shown by Johnstone (1984), educators collectively consider that education policies in general are presently inadequate especially for tackling the major problems facing education at present. The intention of these policies must become more clearly focussed.

Quantifiable features

A final consideration in identifying what to monitor from policy implementation is that the defined outcomes should be quantifiable in some way. Making such a statement raises the ire of many senior educationalists because they would claim that the most important outcomes from

education policy implementation cannot be quantified. Such an attitude is not really defensible however because important outcomes can and indeed should be quantified. As shown elsewhere (see Johnstone (1981)), important education outcomes such as the extent of inequalities in a system, parental and community attitudes towards schooling, curriculum emphases, .etc can be assessed through the definition of appropriate indicators. These indicators can be quantified and changes in their levels monitored over time.

3. HOW CAN POLICY IMPACT BE MONITORED?

Data bases

Policy impact can be monitored by establishing relevant data bases, administrative procedures and computer routines to enable data to be collected, stored and analysed. Traditionally data have been collected from schools and other education institutions by sending out forms from a central or provincial education office and asking some (unfortunate) administrator to complete the forms along with a myriad of other functions he or she has to fulfil. Given this context, it is little wonder that education statistics are of dubious reliability and validity. As Sir Josiah Stamp once wrote:

> "The Government is very keen on amassing statistics. They collect them, add them, raise them to the Nth power, take the cube root and prepare wonderful diagrams. But you must never forget that every one on these figures comes in the first instance from the Village Watchman who just puts down what he pleases"

Systems for data collection

A number of countries have now established reasonable systems of data collection. Indonesia is one despite its problems of immense size. With the durability of computers today, their versatility and their sophistication, it is a relatively simple and straightforward task to establish comprehensive and effective national education data collection systems even covering remote rural conditions in the most difficult LDCs. Very sophisticated computers having significant computing ability and which are very durable now cost only a few hundred dollars and fit into one's pocket. Power, which used to be a problem, can be provided by solar means or by the batteries from the village "ghetto blasters".

The remaining problem presently preventing the establishment of a good system for data collection - and a problem which is far from being overcome in many places - is that of the Village Watchman. If he is to "put down" data which are reliable and valid, a reason should be seen for making the effort. One such reason which will motivate most school administrators is to see some assistance for their own contexts. With computer routines provided by central administrations which could analyse school data and monitor progress at that (administrative) policy level, a basis would be established for a high quality, integrated data collection system which would operate cost-effectively and which had support at all levels.

Indicators

The impact policy implementation has on an education system can be assessed through estimating values for indicators. As indicators can be defined in various ways, it is important to define indicators for a particular education system in line with the policies formulated for that system.

Indicators must be distinguished from variables. Indicators are more global in the comment they make while variables are very specific. An indicator combines several variables to produce a single value. In economics, the Consumer Price Index is an indicator while the cost of a loaf of bread - one component of the CPI - is a variable.

In education planning and management contexts, there are very many indicators which have been developed and used successfully to monitor particular systems. Useful indicators include:

- involvement of human resources in the provision of education
- equality of access to education facilities across regions, different ethnic or racial groups, etc.
- relative emphases at particular levels of the system
- satisfaction with education provision
- relative availability of places at consecutive levels
- education cost index
- index of structural differenciation
- academic production index

Many others are defined and their use demonstrated in Johnstone (1981). Indicators to be used in particular contexts must be defined in relation to the policies applying to that context and the intended/unintended and direct/indirect effects expected from those policies. For any particular system, an analysis really needs to be performed to map the domain of concern and then ensure the definition of monitoring indicators covers the domain properly.

The indicators defined can be used in a variety of ways. Some will compare the target system with itself over time so that evolution and change can be monitored. Other indicators will measure achievement towards specific goals. Yet others will allow comparisons to be made across various systems. Hence definition of indicators should also take into account the purpose for which the indicator is to be used.

Methods of Analysis

There are many ways in which, using indicators especially, the impact of policy can be monitored. As with any methodology, the approach is dependent on the question being asked or the issue being addressed.

For most purposes, the impact of policy implementation can be analysed quite adequately by simply graphing the values of defined indicators over some suitable base such as a sufficient time period or across an appropriate number of entities/sub-groups/etc. If trends cannot be detected through that approach, they are probably not very significant and the policy has not therefore been effective in bringing about change - assuming that is what the policy aimed to do. In developing such graphs, care must be taken to present the data validly. Wainer (1982) develops this thesis very well and shows some of the pitfalls in developing graphical presentations. O'Mara and Johnstone (1981) show how quite complex statistical indicators can be developed and graphed to reveal significant changes in the Australian education system.

Much more complex and statistical approaches can be used. These include especially, multiple regression, time series analysis and typology formation. Examples of these approaches are contained in such sources as Rummel (1972), Taylor and Hudson (1972) and Tucker (1988).

Normally such procedures are useful only in a research-theoretical contexts but they do offer considerable insight into system behaviour when applied appropriately. They are a way therefore in which researchers can interact with policy-makers to monitor particular aspects of policy implementation.

4. WHO REQUIRES THE MONITORING TO OCCUR?

Monitoring of the impact of education policy development should be required by the National or State Ministries responsible for the provision of education. They need to find out if they are achieving what they consider they wish to achieve.

Many other groups also have a degree of interest in the results of such monitoring - particularly the monitoring of those aspects of total policy which affect them most. Groups within the education sector, such as the individual schools as discussed above, have special reasons for being involved with monitoring policy implementation and assessing the effects it is having in their sphere of education provision. Other groups having a significant interest are:

- the community at large which particularly includes parents
- researchers who wish for many practical as well as theoretical reasons to determine how an education system is evolving
- international agencies such as Unesco who wish to establish comparability of data systems, etc across Member States

Unfortunately to date, interested groups have not often had access - particularly timely access - to good data about education systems. Consequently when policy effects are being discussed, the lack of quality and objective data enables different viewpoints to be supported with the result that education debate worldwide about the achievements of education systems is often emotional and uninformed. For all parties involved, properly-based and adequate monitoring of education policy would facilitate discussion and help bring some factions at least together more than often happens in most systems at present.

5. WHEN SHOULD MONITORING TAKE PLACE

As Coombs once noted,

> "One of the necessary steps towards identifying the right questions ... is to develop better instruments for assessing the performance of education systems and their various parts ... what sorts of indicator (does) an education system need to give itself an annual check-up? Without a battery of indicators of an appropriate sort, educational planners and policy-makers have little to go except hunch and prejudice" (1969,33-4).

Despite that call being made over 20 years ago, little has really happened to achieve the result Coombs requests. This is so despite most people being in agreement with the tenor of his statement. An annual report summarising the main policies and showing what broad changes have occurred should be produced by each education system. With appropriate data collection systems using some kind of basic computer linkages, data summarising education system changes should be available by the end of the school year to which the data pertain. Unfortunately many education system reports are not presently available until years later. If that delay persists, one must ask of the senior administrators in those systems how they can manage in a business context when they has no real idea of the scope, the changes or the outputs of their systems.

6. WHAT IS THE FUNDAMENTAL NATURE OF THE MONITORING PROBLEM?

It may appear from the foregoing that solutions to the problems of monitoring the impact of education policy implementation are available and known. Indeed they are. Why therefore is monitoring an issue which needs to be addressed within the context of this Congress?

There are two fundamental problems which have to date acted as barriers to the field of education planning in general and to the monitoring of the impact of education policy in particular. They are:

- the lack of a framework within which integration of practice, participant observation and research can take place
- the human and system resistance to change practices

Integration of participants

Education is not alone in suffering from a lack of an integration amongst the various parties intimately connected - albeit from very different perspectives - with its provision. In one sense that lack is not surprising because education and its systems are live and active. Coordination of other parties is difficult and hence forgotten. In another sense, that lack is a pity because teachers, parents, researchers, etc all can contribute to education policy implementation and need a framework within which their contributions can be channelled.

Many researchers in the general area have not facilitated progress over the past two decades because they have not addressed the fundamental problems of the field. Administrators and policy-makers have often been left to make their decisions without the benefit of advice from those who have the data and the opportunity and time to analyse those data. The gulf between the research community on the one hand and the policy-makers and administrators on the other has been discussed and demonstrated on many occasions. It does not therefore need further demonstration here. Suffice it to raise the issue that the research community needs to be assisted to be more productive and relevant to the real needs of education systems and the ways in which policies for those systems can be formulated, implemented and monitored. This Congress might address that issue within the context of developing a communication framework including all parties.

Human barriers to monitoring

The second problem to the adoption of the technically proven solutions for planning in general and monitoring policy impact in particular is the human element. This element has two aspects - knowledge and attitude. The Congress may wish to address both aspects to recommend ways in which we can overcome these barriers.

Many senior planners and managers have developed knowledge about particular techniques they could use in the conduct of their duties. Unesco and other organisations realised the critical need to train senior and middle level education personnel many years ago. They have provided many courses to assist planners and managers to understand basic planning techniques and to make them more receptive to new ideas and emerging techniques.

Some insight as to the success of those courses can be gleaned from a major survey of educators throughout the world which was conducted in 1984 (Johnstone (1984)). Using a Delphi technique, opinions were canvassed across a wide range of issues related to the Asia-Pacific region. These opinions assessed current status as well as likely futures. Respondents viewed the administration of education systems as being a problem which policy makers needed to address now. About three-quarters of respondents rated the present methods of managing education systems as posing at least moderate if not severe problems.

Some optimism was however expressed for the future by the respondents - about two-thirds claiming the problems of appropriate administration methods will be less severe in the year 2000 than they are now. Nevertheless, about a quarter of respondents consider the problems will be just as severe as they are now and hence they need the immediate attention of policy makers. This latter group of respondents were largely those from the senior levels of the various Education Ministries.

One critical area which has unfortunately not been developed in many education system administrators is that embracing a business philosophy and the use of the many techniques which a business must use if it is to survive. Generally very few education system managers have had the opportunity to become familiar with such approaches because they have begun their careers as classroom teachers and been promoted without exposure to modes of business operation. Hence, despite the significant efforts of the many institutions and the training courses designed to effect improvement in planning and management styles, little change has really occurred. We have succeeded in the training and in the inculcation of knowledge - and as educators we should have achieved at least that. We have not however changed the behaviours being manifest.

Perhaps too little attention has been paid to the contexts and to the administrative system changes which have to occur if new techniques are to be implemented. Simply developing techniques in individuals is insufficient if their work environments are so rigid as to prevent changes being implemented or at least considered in the context of rationalisation and production of greater efficiency. Planning for reforming systems of planning and management should therefore be receiving the same degree of attention as training more personnel in the various techniques and the planning and the management of the system itself. Through top managers creating a climate in which change is really allowed, people who are assigned to training courses can

return to their work in the knowledge that there is a receptiveness to their ideas and newly-attained knowledge, attitudes and skills. If this Congress is to help revitalise the field of education planning and management, it should address the problem of the human element. How can we help administrators examine their own planning and administrative contexts and approaches especially those related to policy development and implementation? We need to improve the process of planning and not only the product. On the basis of that examination, approaches to data collection, analysis and reporting should then be revised - generally quite radically. At least individuals would then know they had a system which would be receptive to appropriate and constructive suggestions for modification and change. Perhaps the Congress could also help to identify approaches which might be tried in various settings.

The human element in the planning and management of education systems also needs to become more attuned to the changing and evolutionary nature of education systems and to recognise the role which can be played in determining the directions for those changes. Conservatism is rife in education systems. Sometimes that conservatism is good because it enables one to ride through fashions which only last a short time. On other occasions however, conservatism is detrimental for it prevents constructive developments from taking place. It can, for example, lead to an attitude that the pace of change in education systems is - and should be - slow. Not only does such an attitude stultify creative and outward thinking on the part of planners and managers but individuals then become preoccupied with daily administrative matters rather than with visions and with plans for changes. Such visions and changes can relate to system directions as well as to techniques for planning, managing and evaluating those systems. Education change can and should be rapid or else many systems will be unable to cope with the demands which are compounding on them now. This Congress might, in its deliberations, consider the conservatism which pervades education planning and management and the education systems themselves to assess ways it might be channelled to best advantage.

6. CONCLUSIONS

The need to monitor the implementation of education policy has been the basic premise of this paper. Various issues related to policy monitoring have been addressed. This Congress provides the first major opportunity to analyse the problems of modernising and developing education management and planning systems for many years.

If the Congress can synthesise the collective expertise available to it into a coherent set of practical guidelines within a theoretical framework to enable each system to select what it requires, education systems provision can be revitalised and modernised as was the hope and endeavour of those participants at the similar meetings in the late 1960's. Recent progress has been hampered by a reversion to traditional bureaucratic solutions and these have almost all been shown to be ineffective in the rapidly changing world of today. Broader vision and broader scope is now required together with modern techniques and the appropriate use of computers. If the Congress can facilitate the achievement of these goals, all the Village Watchmen will see relevance in this aspect of their profession of school management. They will become even more committed to the goals of planning and managing our education systems and indeed ensure that policy is implemented in the way it was intended. Once good data can be obtained from the local levels of our education systems, proper monitoring of the impact of education policies will be realised up to the national level to the betterment of our education systems and the children who learn in them.

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